

# Calibration Certificate

Certificate Number 2014004255

**Customer:**

Urigo S.A.S.  
Calle 15 # 33-18  
Bogata DC, , Colombia

<b>Model Number</b>	LxT2	<b>Procedure Number</b>	D0001.8378
<b>Serial Number</b>	0002186	<b>Technician</b>	Ron Harris
<b>Test Results</b>	<b>Pass</b>	<b>Calibration Date</b>	29 Oct 2014
<b>Initial Condition</b>	AS RECEIVED same as shipped	<b>Calibration Due</b>	29 Oct 2016
<b>Description</b>	SoundTrack LxT Class 2	<b>Temperature</b>	23.27 °C ± 0.01 °C
		<b>Humidity</b>	49.9 %RH ± 0.5 %RH
		<b>Static Pressure</b>	86.98 kPa ± 0.03 kPa

**Evaluation Method** Tested electrically using PRMLxT2 S/N 012017 and an 18.0 pF capacitor to simulate microphone capacitance. Data reported in dB re 20 µPa assuming a microphone sensitivity of 23.6 mV/Pa.

**Compliance Standards** Compliant to Manufacturer Specifications and the following standards when combined with Calibration Certificate from procedure D0001.8384:

IEC 60651:2001 Type 2	ANSI S1.4 (R2006) Type 2
IEC 60804:2000 Type 2	ANSI S1.11 (R2009) Class 2
IEC 61252:2002	ANSI S1.25 (R2007)
IEC 61260:2001 Class 2	ANSI S1.43 (R2007) Type 2
IEC 61672:2013 Class 2	

Issuing lab certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). It has been calibrated using measurement standards traceable to the SI through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2005. **Test points marked with a ‡ in the uncertainties column do not fall within this laboratory's scope of accreditation.**

The quality system is registered to ISO 9001:2008.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

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## Standards Used

Description	Cal Date	Cal Due	Cal Standard
Hart Scientific 2626-S Humidity/Temperature Sensor	05/16/2014	05/16/2015	006943
SRS DS360 Ultra Low Distortion Generator	03/26/2014	03/26/2015	007174

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Provo, UT 84601, United States  
716-684-0001



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# Calibration Certificate

Certificate Number 2014004277

**Customer:**

Urigo S.A.S.  
Calle 15 # 33-18  
Bogata DC, , Colombia

**Model Number** LxT2  
**Serial Number** 0002186  
**Test Results** Pass  
**Initial Condition** AS RECEIVED same as shipped  
**Description** SoundTrack LxT Class 2

**Procedure Number** D0001.8384  
**Technician** Ron Harris  
**Calibration Date** 29 Oct 2014  
**Calibration Due** 29 Oct 2016  
**Temperature** 23.1 °C ± 0.01 °C  
**Humidity** 49.4 %RH ± 0.5 %RH  
**Static Pressure** 87.05 kPa ± 0.03 kPa

**Evaluation Method** Tested with:

PRMLxT2, S/N 012017  
375A02, S/N 010164

Data reported in dB re 20 µPa.

**Compliance Standards** Compliant to Manufacturer Specifications and the following standards when combined with Calibration Certificate from procedure D0001.8378:

IEC 60651:2001 Type 2	ANSI S1.4 (R2006) Type 2
IEC 60804:2000 Type 2	ANSI S1.11 (R2009) Class 2
IEC 61252:2002	ANSI S1.25 (R2007)
IEC 61260:2001 Class 2	ANSI S1.43 (R2007) Type 2

Issuing lab certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). It has been calibrated using measurement standards traceable to the SI through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2005. Test points marked with a ‡ in the uncertainties column do not fall within this laboratory's scope of accreditation.

The quality system is registered to ISO 9001:2008.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

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### Standards Used

Description	Cal Date	Cal Due	Cal Standard
Larson Davis CAL291 Residual Intensity Calibrator	08/26/2014	08/26/2015	001250
Hart Scientific 2626-S Humidity/Temperature Sensor	05/16/2014	05/16/2015	006943
Larson Davis CAL200 Acoustic Calibrator	08/06/2014	08/06/2015	007027
SRS DS360 Ultra Low Distortion Generator	11/16/2013	11/16/2014	007167
Larson Davis Model 831	03/05/2014	03/05/2015	007182
1/2 inch Microphone - P - 0V	03/11/2014	03/11/2015	007185

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# Calibration Certificate

Certificate Number 2014004253

**Customer:**

Urigo S.A.S.  
Calle 15 # 33-18  
Bogata DC, , Colombia

<b>Model Number</b>	PRMLxT2	<b>Procedure Number</b>	D0001.8383
<b>Serial Number</b>	012017	<b>Technician</b>	Ron Harris
<b>Test Results</b>	Pass	<b>Calibration Date</b>	29 Oct 2014
<b>Initial Condition</b>	AS RECEIVED same as shipped	<b>Calibration Due</b>	29 Oct 2016
<b>Description</b>	Larson Davis 1/2" Preamplifier for LxT Class 2 -15 dB	<b>Temperature</b>	23.03 °C ± 0.01 °C
		<b>Humidity</b>	51.4 %RH ± 0.5 %RH
		<b>Static Pressure</b>	86.96 kPa ± 0.03 kPa
<b>Evaluation Method</b>	Tested electrically using an 18.0 pF capacitor to simulate microphone capacitance. Data reported in dB re 20 µPa assuming a microphone sensitivity of 50.0 mV/Pa.		
<b>Compliance Standards</b>	Compliant to Manufacturer Specifications		

Issuing lab certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). It has been calibrated using measurement standards traceable to the SI through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2005. Test points marked with a ‡ in the uncertainties column do not fall within this laboratory's scope of accreditation.

The quality system is registered to ISO 9001:2008.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

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### Standards Used

Description	Cal Date	Cal Due	Cal Standard
Sound Level Meter / Real Time Analyzer	01/13/2014	01/13/2015	003062
SRS DS360 Ultra Low Distortion Generator	02/03/2014	02/03/2015	006239
Hart Scientific 2626-S Humidity/Temperature Sensor	05/16/2014	05/16/2015	006943
Agilent 34401A DMM	08/27/2014	08/27/2015	007115

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10/29/2014 8:30:04AM

# Calibration Certificate

Certificate Number 2014004215

Customer:  
Urigo S.A.S.  
Calle 15 # 33-18  
Bogota DC, Colombia

Model Number CAL150  
Serial Number 4010  
Test Results Pass

Initial Condition AS RECEIVED same as shipped

Description Larson Davis CAL150 Calibrator

Procedure Number D0001.8386  
Technician Scott Montgomery  
Calibration Date 28 Oct 2014  
Calibration Due 28 Oct 2016  
Temperature 24 °C ± 0.3 °C  
Humidity 32 %RH ± 3 %RH  
Static Pressure 101.3 kPa ± 1 kPa

### Evaluation Method

The data is acquired by the insert voltage calibration method using the reference microphone's open circuit sensitivity. Data reported in dB re 20 µPa.

### Compliance Standards

Compliant to Manufacturer Specifications per D0001.8190 and the following standards:  
IEC 60942:2003 ANSI S1.40-2006

Issuing lab certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). It has been calibrated using measurement standards traceable to the SI through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2005. Test points marked with a † in the uncertainties column do not fall within this laboratory's scope of accreditation.

The quality system is registered to ISO 9001:2008.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

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### Standards Used

Description	Cal Date	Cal Due	Cal Standard
Agilent 34401A DMM	09/04/2014	09/04/2015	001021
Sound Level Meter / Real Time Analyzer	04/07/2014	04/07/2015	001051
Microphone Calibration System	08/20/2014	08/20/2015	005446
1/2" Preamplifier	10/09/2014	10/09/2015	006506
Larson Davis 1/2" Preamplifier 7-pin LEMO	08/20/2014	08/20/2015	006507
1/2 inch Microphone - RI - 200V	01/31/2014	01/31/2015	006510
Pressure Transducer	05/03/2014	05/03/2015	007205

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